

WHAT IS CLAIMED IS:

1. A document taking-over system including an electronic pen terminal device provided with an electronic pen which gets information written by hand on a document prepared to be able to specify a kind thereof together with kind information of said document as electronic data and for transmitting said electronic data, a document taking-over apparatus for processing said electronic data to produce it as document information and a system disposed at a latter stage to utilize said document information, which are connected to one another through a network;

    said document taking-over apparatus comprising:

    communication means for receiving said electronic data from said electronic pen terminal device through said network and transmitting said document information to said system at the latter stage;

    memory means for storing format information which defines specifications for converting said electronic data into a predetermined format utilizable in said system at the latter stage;

    recognition means for taking out characters or selection item from said electronic data on the basis of said format information to recognize said taken-out characters or selection item;

    preparation means for preparing said document

information of said predetermined format on the basis of said characters or selection item recognized by said recognition means and said format information; and

registration means for registering said document information in said memory means and transmitting said document information to said system at the latter stage by means of said communication means.

2. A document taking-over system including an electronic pen terminal device provided with an electronic pen which gets information written by hand on a document prepared to be able to specify a kind thereof together with kind information of said document as electronic data and for transmitting said electronic data, a document taking-over apparatus for processing said electronic data to produce it as document information and a system disposed at a latter stage to utilize said document information, which are connected to one another through a network;

said document taking-over apparatus comprising:

communication means for receiving said electronic data from said electronic pen terminal device through said network and transmitting said document information to said system at the latter stage;

memory means for storing format information which defines specifications for converting said

electronic data into a predetermined format utilizable in said system at the latter stage;

preparation means for preparing said document information of said predetermined format on the basis of said electronic data and said format information; and

registration means for registering said document information in said memory means and transmitting said document information to said system at the latter stage by means of said communication means.

3. A document taking-over system including a terminal device provided with an electronic pen which gets information written by hand on a document prepared to be able to specify a kind thereof together with kind information of said document as electronic data and for transmitting said electronic data, a document taking-over apparatus for processing said electronic data to produce it as document information, a correspondence retrieval apparatus for transmitting connection information to said document taking-over apparatus to said terminal device, and a system disposed at a latter stage to utilize said document information, which are connected to one another through a network;

said correspondence retrieval apparatus comprising:

first memory means for storing at least correspondence information for causing said kind

information of said document to correspond to said connection information to said document taking-over apparatus;

first communication means for communicating with said terminal device through said network; and

retrieval means for searching, when said kind information of said document is received from said terminal device, said correspondence information for said connection information to said document taking-over apparatus corresponding to said kind information of said document to transmit said connection information to said terminal device;

said document taking-over apparatus comprising:

second communication means for receiving said electronic data from said terminal device through said network and transmitting said document information to said system at the latter stage;

second memory means for storing format information which defines specifications for converting said electronic data into a predetermined format utilizable in said system at the latter stage;

recognition means for taking out characters or selection item from said electronic data on the basis of said format information to recognize said taken-out characters or selection item;

preparation means for preparing said document information of said predetermined format on the basis

of said characters or selection item recognized by said recognition means and said format information; and

registration means for registering said document information in said memory means and transmitting said document information to said system at the latter stage by means of said communication means.

4. A document-taking-over system including a terminal device provided with an electronic pen which gets information written by hand on a document prepared to be able to specify a kind thereof together with kind information of said document as electronic data and for transmitting said electronic data, a document taking-over apparatus for processing said electronic data to produce it as document information, a correspondence retrieval apparatus for transmitting connection information to said document taking-over apparatus to said terminal device, and a system disposed at a latter stage to utilize said document information, which are connected to one another through a network;

    said correspondence retrieval apparatus comprising:

        first memory means for storing at least correspondence information for causing said kind information of said document to correspond to said connection information to said document taking-over apparatus;

        first communication means for communicating

with said terminal device through said network; and  
retrieval means for searching, when said kind  
information of said document is received from said  
terminal device, said correspondence information for  
said connection information to said document taking-  
over apparatus corresponding to said kind information  
of said document to transmit said connection  
information to said terminal device;

    said document taking-over apparatus  
comprising:

    second communication means for receiving said  
electronic data from said terminal device through said  
network and transmitting said document information to  
said system at the latter stage;

    second memory means for storing format  
information which defines specifications for converting  
said electronic data into a predetermined format  
utilizable in said system at the latter stage;

    preparation means for preparing said document  
information of said predetermined format on the basis  
of said electronic data and said format information;  
and

    registration means for registering said  
document information in said memory means and  
transmitting said document information to said system  
at the latter stage by means of said communication  
means.

5.       A document taking-over system according to

Claim 1, wherein

    said recognition means comprises a  
recognition unit connected to said network.

6.       A document taking-over system according to  
Claim 1, wherein

    said document taking-over apparatus  
comprises:

        preparing a display picture for inputting  
correspondence information indicating correspondence of  
said kind information of said document, said format  
information and said system at the latter stage by  
means of said preparation means; and

        registering said correspondence information  
inputted by using said display picture in said memory  
means by means of said registration means and  
transmitting said document information to said system  
at the latter stage by means of said communication  
means on the basis of said correspondence information.

7.       A document taking-over system according to  
Claim 3, wherein

    said correspondence retrieval apparatus  
further comprises

        second preparation means for preparing  
separate display pictures or the same display picture  
for inputting at least said connection information to  
said document taking-over apparatus, connection  
information to said system at the latter stage, said  
kind information of said document, said format

information and information indicative of correspondence of said document taking-over apparatus and said system at the latter stage; and

second registration means for registering said information inputted by means of said display picture as said correspondence information in said first memory means and transmitting said correspondence information to said document taking-over apparatus by means of said first communication means.

8. A document taking-over system according to Claim 6, further comprising

a correction terminal apparatus connected to said network;

and wherein

said document taking-over apparatus comprises:

preparing a list picture for displaying a list of document information by means of said preparation means and transmitting said list picture to said correction terminal apparatus by means of said communication means;

preparing, when document information one wishes to correct is selected from said list picture, a correction picture for correcting said selected document information and transmitting said correction picture to said correction terminal apparatus by means of said communication means; and

registering said document information

corrected in said correction picture in said memory means by means of said registration means.

9. A document taking-over system according to Claim 7, wherein

    said document taking-over apparatus comprises:

    preparing a list picture for displaying a list of document information by means of said preparation means and transmitting said list picture to said terminal device by means of said second communication means;

    preparing, when document information one wishes to correct is selected from said list picture, a correction picture for correcting said selected document information and transmitting said correction picture to said terminal device by means of said second communication means; and

    registering said document information corrected in said correction picture in said second memory means by means of said registration means.

10. A document taking-over system according to Claim 1, wherein

    said document taking-over apparatus comprises:

    preparing a display picture for designating an entering area of said document and an input picture for inputting identification information for specifying at least said entering area for each entering area by

means of said preparation means as separate pictures or as the same picture; and

registering specifications inputted by using said display picture as said format information in said memory means by means of said registration means.

11. A document taking-over system according to Claim 10, wherein

information inputted in said input picture further contains a name of said entering area, information as to whether information contained in said entering area is transferred to said system at the latter stage or not and information as to whether characters or selection item in said entering area is recognized or not.

12. A document taking-over system according to Claim 11, wherein

said predetermined format is an XML format relating data recognized as said electronic data or characters or selection item to said format information.

13. A document taking-over method of getting information written by hand on a document prepared to be able to specify a kind thereof together with kind information of said document as electronic data by means of an electronic pen, processing said electronic data to be utilizable in a system disposed at a latter stage and delivering it to said system at the latter stage, comprising:

a) a step of causing an electronic pen terminal device to obtain said electronic data from said electronic pen;

b) a step of causing said terminal device to transmit said electronic data to said document taking-over apparatus; and

c) a step of causing said document taking-over apparatus to convert said electronic data into document information of said predetermined format on the basis of format information which defines specifications for converting said electronic data stored in memory means of said document taking-over apparatus into said predetermined format and registering it in memory means of said document taking-over apparatus.

14. A document taking-over method according to Claim 13, further comprising:

d) a step of causing said system at the latter stage to transmit request information for requesting transmission of said document information to said document taking-over apparatus; and

e) a step of causing said document taking-over apparatus to transmit said document information to said system at the latter stage.

15. A document taking-over method according to Claim 13, further comprising:

d) a step of causing said document taking-over apparatus to transmit said document information to

said system at the latter stage when said document information is registered in said memory means of said document taking-over apparatus in the step c).

16. A document taking-over system comprising:

a) an electronic pen for getting information written by hand on a document prepared to be able to specify a kind thereof together with kind information of said document as electronic data;

b) an electronic pen terminal device for transmitting said electronic data; and

c) a document taking-over apparatus for processing said electronic data to produce it as document information and including:

c-1) communication means for receiving said electronic data transmitted from said electronic pen terminal device and transmitting said document information;

c-2) memory means for storing format information which defines specifications for converting said electronic data into a predetermined format;

c-3) recognition means for taking out characters or selection item from said electronic data on the basis of said format information to recognize said taken-out characters or selection item;

c-4) preparation means for preparing said document information of said predetermined format by using said characters or selection item recognized by said recognition means and said format information; and

c-5) registration means for registering said document information to be transmitted through said communication means.

17. A document taking-over apparatus comprising:  
means for receiving data concerning a document as electronic data;

memory means for storing format information which defines specifications for converting said received electronic data into a predetermined format;

document information preparation means for preparing document information of said predetermined format by using said electronic data and said format information;

registration means for registering said document information prepared by said document information preparation means; and

transmission means for transmitting said document information registered in said registration means.